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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,600	09/29/2003	Kirk Price	HSJ920030184US1	2397

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EXAMINER

FIGUEROA, NATALIA

ART UNIT PAPER NUMBER

2651

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/673,600

Applicant(s)

PRICE ET AL.

Examiner

Natalia Figueroa

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Krum et al (USPN 6,351,344), hereinafter Krum.

RE claim 1, Krum discloses a hard disk drive (abstract and fig. 3), comprising an enclosure having a spindle motor mounted thereto and an axial thickness (figs. 1 and 3-4 and col. 1, lines 42-48); a magnetic disk mounted to the spindle motor for rotation relative to the enclosure (figs. 1 and 3-4 and col. 1, lines 33-40), the magnetic disk having an axis of rotation and a storage area (figs. 1 and 3-4 and col. 4, lines 28-40); an actuator mounted to the enclosure and having a head for reading information from and/or writing information to the magnetic disk (figs. 1 and 3-4 and col. 4, lines 28-40); and the enclosure also having a disk region located over at least a portion of the storage area of the magnetic disk, the disk region having an axial thickness that is less than the axial thickness of the enclosure to define a working magnetic gap for erasing the magnetic disk while the magnetic disk is inside the enclosure (figs. 4 and col. 4, lines 55-59).

RE claim 2, Krum further discloses that the enclosure has a base and a cover, and the disk region is located on portions of both the base and the cover (figs. 3-4 and col. 3, line 63-col. 4, line 5 and col. 4, lines 49-54).

RE claim 3, Krum further discloses that the disk region is formed by an indentation in the enclosure (fig. 4, col. 4, lines 55-59 and col. 5, lines 9-11).

RE claim 5, Krum further discloses that the disk region has a length extending in a radial direction, relative to the axis of the magnetic disk, that spans an entire radial length of the storage area of the magnetic disk, such that the entire storage area may be erased (fig. 4 and col. 6, lines 25-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krum.

RE claim 4, Krum is relied upon as stated above. Krum further discloses that the indentation is a rectangular notch (or any suitable shape, col. 5, lines 15-16).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that

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the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

RE claim 6, Krum further discloses that the disk region has a width that is transverse to the radial direction, and the width is less than a width of the enclosure (fig. 4 and col. 5, lines 9-16).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456,

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105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

RE claim 7, Krum further discloses that the enclosure comprises a base and a cover (figs. 3 and 4 and col. 4, lines 51-54), and the width of the disk region on the base differs from the width of the disk region on the cover (figs. 3 and 4 and disclosure thereof).

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the size of the notch, hence reducing the magnetic gap and increasing and concentrating the magnetic flux density for erasing, furthermore it is obvious in the art that changes in size or shape wherein the gap (notch on the enclosure for erasing) and the optimization of such ranges (the spacing in the gap between the erasing gap and of the erasing transducer) will not support the patentability of the subject matter unless there is evidence that the given range is critical or unexpected results occur. Furthermore, routine experimentation from whether you change the size and spacing of the gap for the concentration of the magnetic flux would be a normal engineering endeavor since no unexpected results seem to occur, is merely changing the spacing of the gap, *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976), *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955), *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) and *In re Hoeschele*, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

5. Claims 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krum in view of Serizawa (USPN 6,594,099).

RE claim 8, Krum is relied upon for the same reasons of rejection as stated above. Krum fails to explicitly teach that the working magnetic gap reduces stray magnetic fields to prevent

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motor rotor demagnetization damage, and increase a gradient of magnetic flux as the hard disk drive is inserted into a disk erase apparatus.

However, Serizawa discloses such (fig. 13 and col. 6, lines 26-41). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Krum with teachings of Serizawa the motivation being able to erase portion in the magnetic disk without compromising the spindle motor magnetization hence avoiding its degradation.

RE claim 9, claim 9 has limitations similar to those treated in the above rejection of claim 1, and is met by the references as discussed above. Claim 9 however also recites the following limitation "a disk erase apparatus having a high strength magnetic field for erasing a magnetic disk while the magnetic disk is located inside a hard disk drive assembly." However, Serizawa discloses such (fig. 13 and col. 6, lines 26-41).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Krum with teachings of Serizawa the motivation being able to erase portion in the magnetic disk without compromising the spindle motor magnetization hence avoiding its degradation.

RE claim 10, the combination of Krum and Serizawa is relied upon for the same reasons of rejection as stated above. Krum fails to explicitly teach that the hard disk drive assembly is inserted into a magnetic gap of the disk drive erase apparatus, and the magnetic gap defines an axial dimension that is greater than the axial thickness of the disk region and less than the axial thickness of the enclosure. However, Serizawa discloses such on (fig. 13 and col. 6, lines 26-41).

RE claims 11-17, the combination of Krum and Serizawa is relied upon for the same reasons of rejection as stated above. Claims 11-16 have limitations similar to those treated in the above rejections of claims 2-8, and are met by the references as discussed above.

Response to Arguments

6. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalia Figueroa whose telephone number is (571) 272-7554. The examiner can normally be reached on Monday - Thursday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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